



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8**

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*JUN 13 2011*

Ref: 8EPR-N

Mr. James Christian, Division Administrator  
Federal Highway Administration  
2520 West 4700 South, Suite 9A  
Salt Lake City, UT 84118

Mr. John Njord, Executive Director  
Utah Department of Transportation  
4501 South 2700 West, Box 141245  
Salt Lake City, UT 84114-8380

Re: Draft Environmental Impact Statement,  
Bangerter 600 West Project: Council on  
Environmental Quality # 20110122

Dear Mssrs. Christian and Njord:

The U.S. Environmental Protection Agency (EPA) Region 8 has reviewed the Bangerter 600 West Draft Environmental Impact Statement (EIS) prepared by the U.S. Federal Highway Administration (FHWA) and the Utah Department of Transportation (UDOT). Our comments are provided for your consideration pursuant to our responsibilities and authority under Section 102(2)(C) of the National Environmental Policy Act (NEPA), 42 U.S.C. Section 4332(2)(C), and Section 309 of the Clean Air Act, 42 U.S.C. Section 7609. It is EPA's responsibility to provide an independent review and evaluation of the potential environmental impacts of this project, which includes a rating of the environmental impact of the proposed action and the adequacy of the NEPA document.

**Project Description and Background**

The Draft EIS for the Bangerter 600 West Project analyzes the potential impacts to human health and the environment of proposed improvements to reduce congestion, improve mobility and increase safety on the exit ramps from Interstate 15 (I-15) onto Bangerter Highway and at the intersection of 200 West and Bangerter Highway. This interchange improvement project is on the Bangerter Highway between Interstate 15 (I-15) and the Union Pacific Railroad line at about 900 West in the city of Draper in Salt Lake County, Utah.

The initial alternative screening process yielded the four alternatives that are analyzed in this document. These include various design configurations of the interchange. The preferred alternative is the 600 West Interchange with "Right Turns Only" at 200 West Alternative.

## National Environmental Policy Act Rating

Although UDOT has identified a preferred alternative for this Project, FHWA has not. Comparison of the environmental impacts of the various alternatives does not appear to inform a decision regarding a preferred or less damaging alternative. Therefore, since the described alternatives are similar in impacts, the EPA has rated all of the action alternatives as “Environmental Concerns (EC) - 2 (Insufficient Information).” A copy of the NEPA Rating System Criteria is enclosed.

The EPA has rated the environmental impact of the Project as “EC” based on the following:

- Potential for stormwater runoff associated with the Project to impact downstream water quality of the Jordan River, a Clean Water Act (CWA) 303 (d) impaired water body for total dissolved solids, temperature, *E. coli* and dissolved oxygen.
- Potential for air quality impacts with respect to the new 24-hour Particulate Matter (PM)<sub>2.5</sub> and 24-hour PM<sub>10</sub> National Ambient Air Quality Standard (NAAQS) non attainment designations for the project area.
- The Project-related indirect and cumulative growth impacts on water quality and wildlife habitat on the Galena Property, a conservation reserve.

We have rated the adequacy of the document a “2,” based on the EPA’s assessment that additional information is needed to fully assess the environmental impacts that should be avoided in order to fully protect the environmental. Specifically, EPA recommends the following information be included in the Final EIS:

- Modeling of total suspended solids, total phosphorus, and biological oxygen demand to determine if the project will cause an exacerbation of downstream Jordan River dissolved oxygen impairment. Currently, this river is a Clean Water Act Section 303 (d) impaired water that exceeds the Total Maximum Daily Load (TMDL) for total dissolved solids and temperature in the project vicinity and dissolved oxygen and *E. coli* downstream of the project.
- Modeling using the MOVES 2010a model. The Project will be located within a new 24-hour Particulate Matter (PM)<sub>2.5</sub>, NAAQS nonattainment area and the State has already started work on an attainment demonstration using MOVES 2010a. Modeling of the Project using MOVES 2010a will ensure consistency with the Utah State Implementation Plan and Wasatch Front Regional Council (WFRC) conformity determination.
- A Project level emissions inventory for Carbon Monoxide, Nitrogen Oxides, PM<sub>2.5</sub>, and PM<sub>10</sub> for public disclosure and to support the conformity finding to the WFRC’s 2030 Regional Transportation Plan (RTP). The Project is located in both a PM<sub>2.5</sub>, and PM<sub>10</sub> nonattainment area and this information could be used to demonstrate the Project’s percentage of emissions as compared to the WFRC 2030 RTP.
- Current road dust emissions information for paved roads per EPA’s Compilation of Air Pollutant Emission Factors, also known as AP-42, section 13.2.1.
- Analysis of indirect and cumulative growth impacts on wildlife habitat on the Galena Property.

Thank you for the opportunity to comment on this document. We have enclosed more detailed comments. If you have any questions, please contact me at (303) 312-6004, or you may contact Robin Coursen of my staff at (303) 312-6695.

Sincerely,

A handwritten signature in black ink, appearing to read "L. Svoboda", with a long horizontal flourish extending to the right.

Larry Svoboda, Director  
NEPA Compliance and Review Program  
Office of Ecosystems Protection and Remediation

Enclosure

Cc: Bryan Dillon, FHWA  
Rebecca Stromness, UDOT

## **Bangerter 600 West Draft Environmental Impact Statement**

### **EPA Detailed NEPA Comments**

#### **Water Quality: Impacts from Stormwater Runoff**

The document was well written and provided analysis of potential water quality impacts of the project alternatives for several pollutants of concern. The Utah Department of Transportation (UDOT) applied the Federal Highway Administration (FHWA) pollutant loading model (FHWA-RD-88-006 and FHWA-RD-96-095) to provide a quantitative estimate of increased pollutant loads due to increased impervious surface and stormwater from the most degrading alternative. The pollutants modeled included lead, copper, zinc and total dissolved solids. Event mean concentrations for stormwater pollutants were estimated using site-specific data from I-215 corridor stormwater sampling. Best management practice (BMP) effectiveness was estimated and referenced for the pollutants of interest.

EPA recommends that the analysis be strengthened with regard to potential stormwater impacts in the following areas:

- The document states that the impacted portion of the Jordan River is currently listed on the State's Clean Water Act Section 303(d) list for total dissolved solids and temperature. In addition, downstream segments of the Jordan that will eventually receive stormwater from this project are listed for *E. coli* and dissolved oxygen. The EPA recommends that this information be included in the discussion of impaired waters on page 3-77.
- UDOT reports that biological oxygen demand (BOD), and resultant dissolved oxygen impacts, is not a common issue associated with highway stormwater runoff and was not evaluated. However, Table 3.11-4 contains site-specific data showing that significant amounts of total suspended solids, total phosphorus and BOD were present in stormwater samples in Salt Lake County. These pollutants contribute to the dissolved oxygen impairment downstream in the Jordan. EPA recommends that additional modeling be performed for these parameters to determine if the Project will cause an exacerbation of the Jordan's dissolved oxygen impairment. We recommend that UDOT consult with the Utah Division of Water Quality's Total Maximum Daily Load section regarding thresholds for organic matter/Total Suspended Solid loading for the Jordan.
- Finally, UDOT reports that *E. coli* is not a common contaminant associated with highway stormwater runoff and the loading for this contaminant was not evaluated. Since downstream segments of the Jordan are impaired for *E. coli*, we suggest that UDOT quantify the estimated *E. coli* load and clearly demonstrate whether or not the Project will contribute to this impairment. If site-specific *E. coli* data are not available, literature values could be used to estimate event mean concentrations for this contaminant.

## **Air Quality Mitigation and Monitoring**

Page 3-134, section 3.18.2.3, “Air Quality Impacts due to Construction” contains a brief discussion of potential construction related air quality issues. In addition, Table 3.25-1 “Mitigation Summary” on page 3-174 only discusses BMPs such as fugitive dust control and street sweeping for air quality impacts from construction. We note that air quality impacts during construction are potentially significant and construction periods can last from months to years. A discussion of mitigation of construction impacts could include the following:

- Requiring heavy construction equipment to use the cleanest available engines or to be retrofitted with diesel particulate control.
- Requiring diesel retrofit of construction vehicle engines and equipment as appropriate.
- Using alternatives for diesel engines and/or diesel fuels such as: biodiesel, LNG or CNG, fuel cells and electric engines.
- For winter construction, installing engine pre-heater devices to eliminate unnecessary idling.
- Prohibiting tampering with equipment to increase horsepower or to defeat emission control devices effectiveness.
- Requiring construction vehicle engines to be properly tuned and maintained.
- Using construction vehicles and equipment with the minimum practical engine size for the intended job.
- Using water or wetting agent to control dust.
- Using wind barriers and wind screens to prevent spreading of dust from the site.
- Having a wheel wash station and/or crushed stone apron at egress/ingress areas to prevent dirt being tracked onto public streets.
- Using vacuum-powered street sweepers to remove dirt tracked onto streets.
- Covering all dump trucks leaving sites.
- Covering or wetting temporary excavated materials.
- Using a binding agent for long-term excavated materials.
- Monitoring for PM<sub>10</sub> to allow for the real-time modification or implementation of various dust control measures.
- Locating diesel engines as far away as possible from residential areas.
- Locating staging areas as far away as possible from residential uses.
- Using construction vehicles and equipment with the minimum practical engine size for the intended job.

## **Air Quality Information (Section 3.9)**

- Pg. 3-46, Table 3.9-1: With reference to the Nitrogen Dioxide (NO<sub>2</sub>) National Ambient Air Quality Standards (NAAQS), this section of the table also needs to include that EPA promulgated a 1-hour 100 ppb NO<sub>2</sub> NAAQS (ref. 75 FR 6474, February 9, 2010).
- Pages 3-52 and 3-53, Tables 3.9-3, 3.9-4, and 3.9-5: These tables include ambient air quality monitoring data, from 2004 through 2008, for Salt Lake County. However, the

Utah Division of Air Quality has ambient air quality monitoring data up through and including 2010 that are quality assured, certified by the State and currently available. EPA recommends that these data be included in the Final EIS. Use of ambient air quality data from 2004 through 2010 will assist the public in understanding air quality trends within the vicinity of the project area over several years of the monitored ambient air quality data for Salt Lake County.

- Pg. 3-55, first paragraph under the heading “Microscale (Project-Level) Evaluations for Local Air Quality (CO, PM<sub>10</sub> and PM<sub>2.5</sub>)”: EPA agrees that because the project is in an attainment area for CO, a CO project level conformity analysis is not required. However, for purposes of public disclosure, EPA recommends that the information for this section be expanded to include the following:
  - A table of average daily traffic volumes for current conditions, the no-build alternative, and the build alternative. Much of this information could be extracted and presented in this section from the “Draft EIS Traffic Analysis,” which is listed in the “Other Documents.” Also, consider Tables A-3 and A-5 as potential examples for displaying this information from the Final EIS for the Tooele County Midvalley Highway project<sup>1</sup>.
  - A table of current conditions, no-build alternative and build alternative for vehicle miles traveled (VMT). Table 3-16 from the Geneva Road Final EIS<sup>2</sup> provides an example for displaying this information.
  - Overall total estimated emissions from the project for CO, NO<sub>x</sub>, PM<sub>2.5</sub>, and PM<sub>10</sub>. This would be valuable as the project is located in both a PM<sub>2.5</sub> and PM<sub>10</sub> nonattainment area. At this time these emissions could be calculated using MOBILE6.2 or preferably, using EPA’s most up-to-date mobile sources model, MOVES2010a. In addition to the MOVES2010a mobile sources emissions model, we recommend the use of EPA’s Compilation of Air Pollutant Emission Factors, also known as AP-42, for re-entrained road dust emissions. Please note that on February 4, 2011 Chapter 13.2.1 of AP-42 (road dust emissions for paved roads) was updated and that EPA published the Official Announcement in the Federal Register (76 FR 6328). This Announcement Notice addressed the official release of the updated AP-42 section 13.2.1 and also described the implications for conformity determinations (with a 2-year grace period).
  - Additionally, prepared estimated emissions from the project for CO, NO<sub>x</sub>, PM<sub>2.5</sub> and PM<sub>10</sub> could be used to demonstrate the project’s percentage of emissions as compared to the Wasatch Front Regional Council Regional Council (WFRC) 2030 Regional Transportation Plan (RTP). This project level emissions inventory information would support the Draft EIS’s statements regarding a positive conformity determination finding to WFRC’s 2030 RTP as is described in sections 3.9.1.3, 3.9.3.1, and 3.9.3.2 (see pages 3-47, 3-54,

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<sup>1</sup> [http://www.midvalleyhighway.com/eis\\_process/feis.aspx](http://www.midvalleyhighway.com/eis_process/feis.aspx)

<sup>2</sup> <http://www.udot.utah.gov/geneva/feis.php>



3-55, and 3-56). The only emissions inventory information provided, with regard to conformity, appears in the last paragraph on page 3-56 and only speaks to potential future emission reductions on a national basis; it does not include any specific data or comparisons for this project.

- EPA Region 8 recommends the use of the MOVES210a model for the Draft EIS project for consistency with the work the MPOs and the state have already begun on SIP attainment demonstration using MOVES 2010a. Office of Toxics and Air Quality's (OTAQ) guidance document "**Policy Guidance on the Use of MOVES2010 for State Implementation Plan Development, Transportation Conformity, and Other Purposes**" (see: <http://www.epa.gov/otaq/models/moves/420b09046.pdf>), states that for the new 24-hour PM<sub>2.5</sub> NAAQS nonattainment areas, the attainment demonstration SIP revisions are to use MOVES (ref. issue No. 6 on page 7 of the document). Although the WRFC may still use MOBILE6.2 for conformity determinations during the 2-year grace period, both the state's attainment demonstration and WRFC's conformity determinations will have to be based on MOVES2010a by March 2, 2012. Therefore, using MOVES2010a now will facilitate the evaluation of the Final EIS to both the state's SIP attainment demonstration and future conformity determinations and would avoid the possible necessity of reconciling results from two different models as the environmental review process continues.
- Pages 3-55 and 3-56 discussion on PM<sub>2.5</sub> and PM<sub>10</sub> project level analysis: There is a reference to EPA's guidance about the level of truck traffic (8 percent) in the last paragraph on page 3-55, in the first paragraph on page 3-56, and the second paragraph on page 3-56. However, there is no figure given for the current percentage and predicted future percentage of levels of truck traffic that will use this facility. This information needs to be provided.
- Page 3-56, fourth paragraph: The annual PM<sub>2.5</sub> NAAQS is addressed; EPA recommends that the text be revised to address the PM<sub>2.5</sub> 24-hour (2006) NAAQS for which Salt Lake County was designated as nonattainment on November 13, 2009 (74 FR 68588, effective December 10, 2009). Page 3-57, third and fourth full paragraph under "Mobile-Source Air Toxics (MSATs)": No definitive information is provided to support the statements regarding the relative amount of MSAT emissions for this project. For the purpose of public disclosure, we recommend that an emissions inventory and estimated emissions of the MSATs of concern and the associated VMT be included in the Final EIS, utilizing the MOVES2010a model. For purposes of comparison, it will be useful to determine whether future conditions will be worse than baseline conditions, and whether one alternative is far worse than another, and what that might mean. An example of the presentation of this information can be found in Table 3-17 "Summary of MSAT Calculations" from the Geneva Road Final EIS.
- Scheduling work outside of normal hours for sensitive receptors, which should be necessary only in extreme circumstances, such as construction immediately adjacent to a health care facility, church, outdoor playground or school.

The EPA recommends that the Final EIS consider a discussion of potential monitoring for air quality, especially during construction activities. Although BMPs will be utilized during construction, potential localized impacts from PM<sub>2.5</sub> and PM<sub>10</sub> emissions could occur. Factors that should be considered would be the immediate proximity of a highway project to homes, schools, businesses and other sensitive populations. A properly designed monitoring plan would demonstrate how well the preferred alternative resolves the identified issues and concerns by measuring the effectiveness of the mitigation measures in controlling or minimizing adverse effects.

### **Indirect and Cumulative Effects from Growth**

The project will indirectly affect land use (commercial and residential) and the pace of planned development. Land use maps (pg. 3-6) from the city of Draper indicate that a great deal of commercial and residential growth in the project area is currently planned and 2030 growth projections exceed 30 percent. Indirect and cumulative impacts from growth have historically impacted, and are likely to continue to impact, Jordan River water quality, wildlife habitat (e.g., invasive species, habitat fragmentation and habitat conversion to development) and environmental sustainability of the Galena Property, a conservation area managed by the Utah Division of Forestry, Fire, and State Lands. This agency is responsible for managing the property in a manner that leads to the enhancement of its natural resources, including functions relating to vegetation, wildlife, water quality and cultural resources. EPA recommends consultation and close coordination with this agency to assure that the preservation and sustainability of habitat and the wetland bank of this conservation area is maintained. This could include commitments to minimization of disturbance impacts to migratory birds and raptors during construction activities and improvement of degraded habitat. EPA recommends that the Final EIS further analyze the indirect and cumulative impacts of growth on downstream water quality and Galena reserve habitat to determine the significance of impacts and evaluate the need for potential mitigation.

